

SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> Modified antibodies recognizing trimer receptor or higher

<130> C1-A0324P

<150> JP 2003-415735

<151> 2003-12-12

<160> 42

<170> PatentIn version 3.1

<210> 1

<211> 797

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized nucleotide sequence

<400> 1

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ctgagactct cctgtgcagc ctctggattc acctttagca gctatgcat gagctgggtc	180
cgccaggctc cagggaaggg gctggagtgg gtctcagcta ttagtggttag tggtagtagc	240
agatactacg cagactccgt gaagggccgg ttcacatct ccagagaca ttccaagaac	300
acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cgcccgata ttactgtgcg	360

aaagagagca gtggctgggt cggggccttt gactactggg gccagggaac cctggtcacc 420
 gtctcctcag gtggagaaat tgtgctgact cagtctccag actttcagtc tgtgactcca 480
 aaggagaaag tcaccatcac ctgccgggcc agtcagagca ttggtagtag cttacactgg 540
 taccagcaga aaccagatca gtctccaaag ctctcatca agtatgcttc ccagtccttc 600
 tcaggggtcc cctcgagggt cagtggcagt ggatctggga cagatttcac cctcaccatc 660
 aatagcctgg aagctgaaga tgctgcagcg tattactgtc atcagagtag tagtttaccg 720
 atcaccttcg gccaaaggac acgactggag attaaagact acaaggatga cgacgataag 780
 tgataagcgg ccgcaat 797

<210> 2

<211> 256

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized peptide sequence

<400> 2

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly

1 5 10 15

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln

20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe

35 40 45

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu

50		55		60
Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Arg Tyr Tyr Ala				
65		70		75
				80
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn				
	85		90	95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val				
	100		105	110
Tyr Tyr Cys Ala Lys Glu Ser Ser Gly Trp Phe Gly Ala Phe Asp Tyr				
	115		120	125
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Glu Ile Val				
	130		135	140
Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val				
145		150		155
				160
Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser Leu His Trp				
	165		170	175
Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys Tyr Ala				
	180		185	190
Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser				
	195		200	205
Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala				
	210		215	220
Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Ile Thr Phe Gly				
225		230		235
				240
Gln Gly Thr Arg Leu Glu Ile Lys Asp Tyr Lys Asp Asp Asp Asp Lys				

245

250

255

<210> 3

<211> 794

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized nucleotide sequence

<400> 3

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ctgagactct cctgtgcagc ctctggattc acctttagca gctatgccat gagctgggtc 180

cgccaggctc cagggaaggg gctggagtgg gtctcagcta ttagtggttag tggtagtagc 240

agatactacg cagactccgt gaagggccgg ttcacatctt ccagagacaa ttccaagaac 300

acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cggccgtata ttactgtgcg 360

aaagagagca gtggctgggt cggggccttt gactactggg gccagggaac cctggtcacc 420

gtctcctcag gtgaaattgt gctgactcag tctccagact ttcagtctgt gactccaaag 480

gagaaagtca ccatcacctg ccgggccagt cagagcattg gtagtagctt aactgggtac 540

cagcagaaac cagatcagtc tccaaagctc ctcatcaagt atgcttccca gtccttctca 600

gggggtccct cgagggttcag tggcagtgga tctgggacag atttcaccct caccatcaat 660

agcctggaag ctgaagatgc tgcagcgtat tactgtcatc agagtagtag ttaccgatc 720

accttcggcc aaggacacg actggagatt aaagactaca aggatgacga cgataagtga 780

taagcgccg caat 794

<210> 4

<211> 255

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized peptide sequence

<400> 4

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Arg Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Lys Glu Ser Ser Gly Trp Phe Gly Ala Phe Asp Tyr

115	120	125
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Glu Ile Val Leu		
130	135	140
Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr		
145	150	155
		160
Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser Leu His Trp Tyr		
165	170	175
Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys Tyr Ala Ser		
180	185	190
Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly		
195	200	205
Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala		
210	215	220
Ala Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Ile Thr Phe Gly Gln		
225	230	235
		240
Gly Thr Arg Leu Glu Ile Lys Asp Tyr Lys Asp Asp Asp Asp Lys		
245	250	255

<210> 5

<211> 791

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized nucleotide sequence

<400> 5

tagaattcca ccatggagtt tgggctgagc tggctttttc ttgtggctat tttaaaaggt	60
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ctgagactct cctgtgcagc ctctggattc acctttagca gctatgccat gagctgggtc	180
cgccaggctc caggggaagg gctggagtgg gtctcagcta ttagtggttag tggtagtagc	240
agatactacg cagactccgt gaagggccgg ttcaccatct ccagagacaa ttccaagaac	300
acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cggccgtata ttactgtgcg	360
aaagagagca gtggctggtt cggggccttt gactactggg gccagggaac cctggtcacc	420
gtctcctcag aaattgtgct gactcagtct ccagactttc agtctgtgac tccaaaggag	480
aaagtcacca tcacctgccg ggccagtcag agcattggta gtagcttaca ctggtaccag	540
cagaaaccag atcagtctcc aaagctcttc atcaagtatg cttcccagtc cttctcaggg	600
gtcccctcga ggttcagtgg cagtggatct gggacagatt tcaccctcac catcaatagc	660
ctggaagctg aagatgctgc agcgtattac tgtcatcaga gtagtagttt accgatcacc	720
ttcggccaag ggacacgact ggagattaaa gactacaagg atgacgacga taagtgataa	780
gcggccgcaa t	791

<210> 6

<211> 254

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized peptide sequence

<400> 6

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly
 1 5 10 15

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
 20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Arg Tyr Tyr Ala
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
 85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Lys Glu Ser Ser Gly Trp Phe Gly Ala Phe Asp Tyr
 115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Ile Val Leu Thr
 130 135 140

Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile
 145 150 155 160

Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser Leu His Trp Tyr Gln
 165 170 175

Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys Tyr Ala Ser Gln

180	185	190
Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr		
195	200	205
Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Ala		
210	215	220
Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Ile Thr Phe Gly Gln Gly		
225	230	235
		240
Thr Arg Leu Glu Ile Lys Asp Tyr Lys Asp Asp Asp Asp Lys		
245	250	

<210> 7

<211> 1538

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized nucleotide sequence

<400> 7

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ctgagactct cctgtgcagc ctctggattc accttagca gctatgcat gagctgggtc 180

cgccaggctc cagggaaggg gctggagtgg gtctcagcta ttagtggttag tggtagtagc 240

agatactacg cagactccgt gaagggccgg ttcacatct ccagagaca ttccaagaac 300

acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cgccgtata ttactgtgcg 360

aaagagagca gtggctggtt cggggccttt gactactggg gccagggaac cctggtcacc	420
gtctcctcag gtggaggcgg atcggaatt gtgctgactc agtctccaga ctttcagtct	480
gtgactccaa aggagaaagt caccatcacc tgccgggcca gtcagagcat tggtagtagc	540
ttacactggt accagcagaa accagatcag tctccaaagc tcctcatcaa gtatgcttcc	600
cagtccttct caggggtccc ctcgaggttc agtggcagtg gatctgggac agatttcacc	660
ctcaccatca atagcctgga agctgaagat gctgcagcgt attactgtca tcagagtagt	720
agtttaccga tcaccttcgg ccaagggaca cgactggaga ttaaaagagc tgatgctgca	780
gctgcaggag gtcccgggtc cgaggtacag ctgttgagtg ctgggggagg cttggtacag	840
cctgggaggt ccctgagact ctctgtgca gcctctggat tcacctttag cagctatgcc	900
atgagctggg tccgccaggc tccagggaag gggctggagt gggctctcagc tattagtgg	960
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aattccaaga acacgtgta tctgcaaatg aacagcctga gagccgagga cacggccgta	1080
tattactgtg cgaaagagag cagtggctgg ttccgggcct ttgactactg gggccaggga	1140
accctggtca ccgtctctc aggtggaggc ggatcggaaa ttgtgctgac tcagtctcca	1200
gactttcagt ctgtgactcc aaaggagaaa gtcacatca cctgccgggc cagtcagagc	1260
attggtagta gttacactg gtaccagcag aaaccagatc agtctccaaa gctcctcatc	1320
aagtatgctt ccagtcctt ctcaggggtc ccctcgaggt tcagtggcag tggatctggg	1380
acagattica ccctcacat caatagcctg gaagctgaag atgctgcagc gtattactgt	1440

catcagagta gtagtttacc gatcaccttc ggccaaggga cacgactgga gattaaagac 1500

tacaaggatg acgacgataa gtgataagcg gccgcaat 1538

<210> 8

<211> 503

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized peptide sequence

<400> 8

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Arg Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Lys Glu Ser Ser Gly Trp Phe Gly Ala Phe Asp Tyr

115	120	125
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser		
130	135	140
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys		
145	150	155
		160
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser		
165	170	175
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile		
180	185	190
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly		
195	200	205
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala		
210	215	220
Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Ile		
225	230	235
		240
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Ala Asp Ala Ala		
245	250	255
Ala Ala Gly Gly Pro Gly Ser Glu Val Gln Leu Leu Glu Ser Gly Gly		
260	265	270
Gly Leu Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser		
275	280	285
Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro		
290	295	300
Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser Gly Ser Gly Gly Ser		

305	310	315	320
Arg Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp			
	325	330	335
Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu			
	340	345	350
Asp Thr Ala Val Tyr Tyr Cys Ala Lys Glu Ser Ser Gly Trp Phe Gly			
	355	360	365
Ala Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly			
	370	375	380
Gly Gly Gly Ser Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser			
385	390	395	400
Val Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser			
	405	410	415
Ile Gly Ser Ser Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro			
	420	425	430
Lys Leu Leu Ile Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser			
	435	440	445
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn			
	450	455	460
Ser Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser			
465	470	475	480
Ser Leu Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Asp			
	485	490	495
Tyr Lys Asp Asp Asp Asp Lys			

500

<210> 9

<211> 15

<212> DNA

<213> Artificial

<220>

<223> An artificial sequence encoding linker sequence

<400> 9

ggtggaggcg gatcg

15

<210> 10

<211> 5

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized linker sequence

<400> 10

Gly Gly Gly Gly Ser

1

5

<210> 11

<211> 24

<212> DNA

<213> Artificial

<220>

<223> An artificial sequence encoding flag tag sequence

<400> 11

gactacaagg atgacgacga taag

24

<210> 12

<211> 8

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized flag tag sequence

<400> 12

Asp Tyr Lys Asp Asp Asp Asp Lys

1

5

<210> 13

<211> 806

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized diabody sequence

<400> 13

tagaattcca ccatggagtt tgggctgagc tggctttttc ttgtggctat tttaaaaggt 60

gtccagtgtg aggtacagct gttggagtct gggggaggct tggtagagcc tgggaggtcc 120

ctgagactct cctgtgcagc ctctggattc accttagca gctatgccat gagctgggtc 180

cgccaggctc cagggaaggg gctggagtgg gtctcagcta ttagtggttag tggtagtagc 240

agatactacg cagactccgt gaagggccgg ttcacatct ccagagacaa ttccaagaac 300

acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cggccgtata ttactgtgcg 360
 aaagagagca gtggctggtt cggggccttt gactactggg gccagggaac cctggtcacc 420
 gtctcctcag gtggaggcgg atcggaatt gtgctgactc agtctccaga ctttcagtct 480
 gtgactccaa aggagaaagt caccatcacc tgccgggcca gtcagagcat tggtagtagc 540
 ttacactggt accagcagaa accagatcag totccaaagc tcctcatcaa gtatgcttcc 600
 cagtccttct caggggtccc ctcgaggttc agtggcagtg gatctgggac agatttcacc 660
 ctcaccatca atagcctgga agctgaagat gctgcagcgt attactgtca tcagagtagt 720
 agttttaccga tcaccttcgg ccaagggaca cgactggaga ttaaagacta caaggatgac 780
 gacgataagt gataagcggc cgcaat 806

<210> 14

<211> 94

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 14

tagaattcca ccatggagtt tgggctgagc tggctttttc ttgtggctat tttaaaaggt 60

gtccagtgtg aggtacagct gttggagtct gggg 94

<210> 15

<211> 96

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 15

tgctaaaggt gaatccagag gctgcacagg agagtctcag ggacctccca ggctgtacca 60

agcctccccc agactccaac agctgtacct cacact 96

<210> 16

<211> 97

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 16

cctgtgcagc ctctggattc acctttagca gctatgccat gagctgggtc cgccaggctc 60

cagggaaggg gctggagtgg gtctcagcta ttagtgg 97

<210> 17

<211> 99

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 17

ttggaattgt ctctggagat ggtgaaccgg cccttcacgg agtctgcgta gtatctgcta 60

ccaccactac cactaatagc tgagaccac tccagcccc

99

<210> 18

<211> 103

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 18

ccggttcacc atctccagag acaattccaa gaacacgctg tatctgcaaa tgaacagcct 60

gagagccgag gacacggccg tatattactg tgcgaaagag agc 103

<210> 19

<211> 87

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 19

ggagacggtg accagggttc cctggcccca gtagtcaaag gccccgaacc agccactgct 60

ctctttcgca cagtaatata cggccgt 87

<210> 20

<211> 98

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 20

tggggccagg gaaccctggt caccgtctcc tcagggtggag gcggatcgga aattgtgctg 60

actcagtctc cagactttca gtctgtgact ccaaagga 98

<210> 21

<211> 79

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 21

taagctacta ccaatgtctt gactggcccg gcaggatgatg gtgactttct cttttggagt 60

cacagactga aagtctgga 79

<210> 22

<211> 103

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 22

cgggccagtc agagcattgg tagtagctta cactgggtacc agcagaaacc agatcagtct 60

ccaaagctcc tcatcaagta tgcttcccag tccttctcag ggg 103

<210> 23
 <211> 97
 <212> DNA
 <213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 23
 gcttccaggc tattgatggt gaggggtgaaa tctgtcccag atccactgcc actgaacctc 60
 gaggggaccc ctgagaagga ctgggaagca tacttga 97

<210> 24
 <211> 90
 <212> DNA
 <213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 24
 ttccaccctc accatcaata gcctggaagc tgaagatgct gcagcgtatt actgtcatca 60
 gagtagtagt ttaccgatca ccttcggcca 90

<210> 25
 <211> 93
 <212> DNA
 <213> Artificial

<220>

<223> An artificially synthesized oligonucleotide sequence

<400> 25
attgcggccg cttatcactt atcgtcgtca tccttgtagt ctttaatctc cagtcgtgtc 60

ccttggccga aggtgatcgg taaactacta ctc 93

<210> 26

<211> 26

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 26
tagaattcca ccatggagtt tgggct 26

<210> 27

<211> 26

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 27
ggagacggtg accagggttc cctggc 26

<210> 28

<211> 26

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 28

tggggccagg gaaccctggt caccgt

26

<210> 29

<211> 26

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 29

attgcggccg cttatcactt atcgtc

26

<210> 30

<211> 35

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 30

tcctcaggtg gagaaattgt gctgactcag tctcc

35

<210> 31

<211> 36

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 31

aatttctcca cctgaggaga cggtgaccag ggttcc

36

<210> 32

<211> 32

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 32

tcctcaggtg aaattgtgct gactcagtct cc

32

<210> 33

<211> 36

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 33

cacaatttca cctgaggaga cggtgaccag ggttcc

36

<210> 34

<211> 32

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 34

gtctcctcag aaattgtgct gactcagtct cc

32

<210> 35

<211> 36

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 35

cacaatttct gaggagacgg tgaccagggt tccctg

36

<210> 36

<211> 12

<212> PRT

<213> Artificial

<220>

<223> An artificially synthesized linker sequence

<400> 36

Arg Ala Asp Ala Ala Ala Ala Gly Gly Pro Gly Ser

1

5

10

<210> 37

<211> 60

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 37

ggacccggga cctcctgcag ctgcagcatc agctctttta atctccagtc gtgtcccttg 60

<210> 38

<211> 35

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 38

ggtcccgggt ccgaggtaca gctgttgag tctgg 35

<210> 39

<211> 37

<212> DNA

<213> Artificial

<220>

<223> An artificially synthesized primer sequence

<400> 39

gataagcttc caccatggag tttgggctga gctggct 37

<210> 40

<211> 43

<212> DNA

<213> Artificial

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<223> An artificially synthesized primer sequence

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<211> 40

<212> DNA

<213> Artificial

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<223> An artificially synthesized primer sequence

<400> 42

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